

REMARKS

Claim 52 has been amended to recite that the anode is chemically rechargeable, and at least a portion of the anode is liquid at a temperature at which the anode is operated. Claim 121 has been amended to recite that the chemically rechargeable anode comprises tin metal. Support for these amendments can be found in the specification, for example, on page 10, lines 1-20, or on page 7, lines 17-23. Thus, no new matter has been added.

Claims 114, 115, and 122 have been cancelled without prejudice or disclaimer.

Claims 52, 116-121, and 123-127 are now pending for examination.

Rejections under 35 U.S.C. § 112, ¶2

Claim 52 has been rejected under 35 U.S.C. § 112, ¶2, as the Patent Office states that the phrase “being constructed of a material such that” renders the claim indefinite. In addition, the Patent Office rejects the phrase “wherein,” as it may “raise a question as to the limiting effect of the language in a claim.”

Applicants are somewhat confused by this rejection, especially the rejection of the use of the phrase “wherein.” Clarification of this rejection is thus respectfully requested. However, in an effort to address this rejection, Applicants have amended claim 52 to recite that the anode is chemically rechargeable.

Rejections under 35 U.S.C. §102(b) in view of Clough

Claims 52, 114, 115, 121, and 122 have been rejected under 35 U.S.C. §102(b) as being anticipated by Clough, U.S. Patent No. 5,601,945 (“Clough”).

Applicants do not see where Clough teaches or suggests an anode that is a liquid at a temperature at which the anode is operated, nor do Applicants see where Clough discloses or suggests a chemically rechargeable anode comprising tin metal. In Clough, a substrate is coated with a tin oxide precursor, such as stannous chloride, which is then converted on the substrate to tin oxide (see, e.g., Col. 4, lines 26-40). However, Clough does not teach or suggest tin metal, but only the interconversion between tin oxide and a tin oxide precursor compound, usually a tin chloride (i.e., stannous chloride or stannic chloride) or a tin complex (see, e.g., Col. 4, lines 56-65). Clough

also does not teach that the substrate is used as an anode, nor does Clough teach that the substrate turns into a liquid during use. To the contrary, the substrate that Clough teaches is used to form various structural components in a battery (see, e.g., col. 4, lines 41-44).

While the Patent Office points to Col. 5, lines 40-53 and Col. 8, lines 7-22 to show an anode that is liquid, these passages actually discuss the process used to coat the substrate with tin oxide, and do not teach liquefaction of the substrate. For instance, Col. 5, lines 40-53 states that the liquid is used to: “(1) coat a larger portion of the substrate with stannous chloride-containing coating; (2) distribute the stannous chloride coating over the substrate; (3) make the stannous chloride-containing coating more uniform in thickness; and (4) distribute the dopant-forming component more uniformly in the stannous chloride-containing coating,” while Col. 8, lines 7-22 describes the tin oxide precursor powder as being “liquidous” in order to “wet” or coat the substrate with tin oxide.

Accordingly, it is believed that Clough does not teach or suggest an anode that is a liquid at a temperature at which the anode is operated, nor does Clough teach or suggest a chemically rechargeable anode comprising tin metal. Thus, it is respectfully requested that the rejection of claims 52 and 121 be withdrawn. Claims 114, 115, and 122 have been cancelled without prejudice, thus rendering their rejection moot.

Rejections under 35 U.S.C. §103(a)/§102(b) in view of Clough

Claims 116-120 and 123-127 have been rejected under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being obvious over Clough.

For at least the above-described reasons with respect to the rejection of independent claims 52 and 121, it is believed that claims 52 and 121, as amended, are not anticipated or rendered obvious by Clough. Accordingly, while Applicants do not concede that Clough teaches the limitations of claims 116-120 and 123-127, or that there would have been any suggestion or motivation to modify Clough in order to reach these limitations, the present rejection cannot stand, regardless. Thus, withdrawal of the rejection of claims 116-120 and 123-127 is respectfully requested.


CONCLUSION

In view of the foregoing, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this response, that the application is not in condition for allowance, the Examiner is requested to call the undersigned at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge our Deposit Account No. 23/2825, under Order No. T0457.70019US00 from which the undersigned is authorized to draw.

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Respectfully submitted,

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